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09/824,694	04/03/2001	Sean Allen Johnson	5003397-100	9675

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EXAMINER
PHAM, HUNG Q

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the c rrespondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>04 September 2003</u> .

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-29* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-29* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-29 have been considered

but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

3.   **Claims 1-3, 6, 9, 10, 14-16, 18-20, 22-24 and 26-28 are rejected under**

35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1].

Regarding to claims 1, 14 and 22, Machihara teaches methods and systems for

retrieving information, specified by an information searcher, from a plurality of different

database systems, which are connected to a communication network (Col. 1, lines 5-

11). As shown in FIG. 2, a plurality of database systems connected to the

communication network (Col. 5, lines 55-56) as *a plurality of content repositories*. As

shown in FIG. 3, the information resource dictionary 170 manages the metadata and

content of the database system (Col. 7, lines 34-38) by using relational tables as in FIG.

4. The information resource dictionary 170 supports the interface section 110 serves as

the communication interface for the user as *a client application program interface* to enter

an information retrieval request (FIG. 3, Col. 7, lines 8-10). As shown in FIG. 8, a user

enters search conditions indicating that he wishes to search for sumo-wrestlers who

were born in Tokyo city and display the results in a spreadsheet format (Col. 9, lines 31-

44) as *a request to access content and metadata properties*. In short, the technique as

discussed above performs the claimed *a client application program interface (API) that is*

configured to generate a user request to access content and metadata properties in a plurality

of content repositories. The retrieval conditions specified by the user and the requested

items expressed in the retrieval content are analyzed so that user's words familiar to the

user are converted into system words that can be recognized by the relevant database

systems by the language analysis section 120 (Col. 6, lines 40-46; Col. 7, lines 11-17).

Based on the results of the language analysis section 120, the information location

retrieval section 130 determines where the requested items can be found in the

database systems 180, and prepares a SQL so that searches can be conducted

through the database systems 180 (Col. 7, lines 18-25). As seen, language analysis

section 120 and the information location retrieval section 130 indicates *a plurality of*

bridges that translates the user request into SQL as *a format understandable by the* database

systems 180 as *plurality of content repositories*. The information location retrieval section

130 also obtains necessary information to convert the search results into a format that

can be presented to the user and transfers the information to the information retrieval

section (Col. 7, lines 25-29). As shown in FIG. 2 is a retrieved data presentation means

10 for transforming information corresponding to the information retrieval request

obtained by information retrieval means 40, into a format which can be read by an

application software used by the information searcher so as to facilitate processing of

the acquired information by the user (Col. 6, lines 18-24). This performs the claimed *a*

view services component that processes and converts results content from the plurality of

content repositories into a format that is supported by the viewing capabilities of said client

API. Machihara does not explicitly teach the content repositories having *a plurality of*

proprietary program interfaces to understand to the format of user request. However, in

order to access the various database system 180, the middlewares section 150 is used

to receive the user request also the database result as in FIG. 3 (Col. 7, lines 39-42). As

known in the art, middleware is software that provides a common application program

interface such as ODBC or JDBC. Thus, the middlewares indicates a plurality of

proprietary program interfaces of the database systems 180, and obviously, the user

request of sumo-wrestlers as discussed above must be understandable by the

middlewares for preparing a SQL so that searches can be conducted through the

database systems 180. Therefore, it would have been obvious for one of ordinary skill in

the art at the time the invention was made to modify the Machihara system by including

a plurality of proprietary program interfaces for understanding the user request in order

to prepare a SQL query for different DBMS systems.

Regarding to claims 2, 15 and 23, Machihara teaches all the claimed subject

matters as discussed in claims 1, 14 and 22, Machihara further discloses *an access*

services component that relays the user request to access content and metadata properties in

the plurality of content repositories from said client API to said plurality of bridges (FIG. 3,

Language analysis section 120).

Regarding to claims 3, 16 and 24, Machihara teaches all the claimed subject

matters as discussed in claims 2, 14 and 22, Machihara further discloses *access services*

component maps metadata properties across the plurality of content repositories (Col. 8, line

51-Col. 9, line 35).

Regarding to claims 6, 18 and 26, Machihara teaches all the claimed subject

matters as discussed in claims 1, 14 and 22, but does not explicitly teach *a singe bridge*

corresponds with a single content repository. However, as disclosed by Machihara, a

plurality of middlewares connects to a plurality of database system 180 (FIG. 3).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the

invention was made to modify the Machihara system by using each middleware for each

database system in order to speed up the process of retrieving information.

Regarding to claims 9, 19 and 27, Machihara teaches all the claimed subject

matters as discussed in claims 1, 14 and 22, but fails to disclose *a bridge factory that is*

configured to generate a new bridge to support each new content repository in the system.

However, as disclosed by Machihara, a plurality of middlewares connects to a plurality

of database system 180 (FIG. 3). Therefore, it would have been obvious for one of

ordinary skill in the art at the time the invention was made to modify the Machihara

system by including a bridge factory in order to speed up the process of retrieving

information.

Regarding to claims 10, 20 and 28, Machihara teaches all the claimed subject

matters as discussed in claims 1, 14 and 22, Machihara further discloses *view services*

component comprises at least one converter that coverts results content into an Internet

browser readable format (FIG. 3, application software section 160).

4.   **Claims 4, 17 and 25 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Van Huban et al.

[USP 6,484,177 B1].

Regarding to claims 4, 17 and 25, Machihara teaches all the claimed subject

matters as discussed in claims 1, 14 and 22, Machihara further discloses *an exchange*

services server that enables import and export of non-XML content and metadata properties in

the plurality of content repositories (Information Resource Dictionary 170, FIG. 3), but fails

to teach the content repositories in an *XML format*. Van Huben discloses a plurality of

database system with XML format (Van Huben, FIG. 4B). Therefore, it would have been

obvious for one of ordinary skill in the art at the time the invention was made to modify

the Machihara system by including the XML document in the database system in order

to retrieve a database that contains XML files.

5.   **Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Hobbs [USP

6,523,022 B1].

Regarding to claim 5, Machihara teaches all the claimed subject matters as

discussed in claim 1, but fails to disclose *client API is in a format selected from the group*

consisting of Java, component object model (COM), and web services. Hobbs teaches a

system for selecting multimedia information and further discloses a transport layer API

such as Java, component object model (COM), and web services (Hobbs, Col. 14, lines

9-20). Therefore, it would have been obvious for one of ordinary skill in the art at the

time the invention was made to modify the Machihara system by including Java,

component object model (COM), and web services in API 110 in order to communicate

with a remote database server.

Regarding to claim 12, Machihara teaches all the claimed subject matters as

discussed in claim 1, but fails to disclose *each bridge answers client requests via a mode*

selected from the group consisting of remote method invocation (RMI), Internet Inter-ORB

Protocol (IIOP), and extensible markup language (XML) over hypertext transport protocol

(HTTP). Hobbs teaches a system for selecting multimedia information and further

discloses a transport layer API from the groups of remote method invocation, Internet

Inter-ORB Protocol, and extensible markup language over hypertext transport protocol

(Hobbs, Col. 14, lines 9-20). Therefore, it would have been obvious for one of ordinary

skill in the art at the time the invention was made to modify the Machihara system by

including remote method invocation, Internet Inter-ORB Protocol, and extensible

markup language over hypertext transport protocol in API 110 in order to communicate

with a remote database server.

6.   **Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Clark et al. [USP

6,442,541 B1].

Regarding to claim 7, Machihara teaches all the claimed subject matters as

discussed in claim 1, but fails to disclose *view services component is an Enterprise Java*

Bean. Clark teaches a set of Java Beans for facilitating data extraction from a JDBC-

ODBC database (Clark, Abstract). Therefore, it would have been obvious for one of

ordinary skill in the art at the time the invention was made to modify the Machihara

system by including an Enterprise Java Bean in order to enhance the view of the search

result.

Regarding to claim 8, Machihara teaches all the claimed subject matters as

discussed in claim 1, but fails to disclose *each bridge is an Enterprise Java Bean (EJB)*

deployed in an application server. However, as disclosed by Machihara, a plurality of

middlewares connects to a plurality of database system 180 (FIG. 3). Clark teaches a

set of Java Beans for facilitating data extraction from a JDBC-ODBC database (Clark,

Abstract). Therefore, it would have been obvious for one of ordinary skill in the art at the

time the invention was made to modify the Machihara system by including each

Enterprise Java Bean in each middleware in order to enhance the view of the search

result.

7.   **Claims 11, 21 and 29 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Clairborne [USP

6,462,833 B1].

Regarding to claims 11, 21 and 29, Machihara teaches all the claimed subject

matters as discussed in claims 1, 14 and 22, but fails to disclose *one processor that*

processes results content by scaling, rotating, or enhancing an image. Clairborne teaches a

processor that processes results content by scaling, rotating, or enhancing an image

(Clairborne, Col. 9, lines 29-55). Therefore, it would have been obvious for one of

ordinary skill in the art at the time the invention was made to modify the Machihara

system by including a processor to process an image in order to edit an image file

retrieved from an image database.

8.   **Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable**

over Machihara et al. [USP 6,233,578 B1] in view of Hobbs [USP 6,523,022 B1] and

Rangarajan et al. [USP 6,185,609 B1].

Regarding to claim 13, Machihara teaches all the claimed subject matters as

discussed in claim 1, but fails to disclose *each bridge accesses its underlying content*

repository via a mode selected from the group consisting of Java, Component Object Model

(COM), and Java Native Interface (JNI) application program interface (API) calls. Hobbs

teaches a system for selecting multimedia information and further discloses a transport

layer API such as Java, component object model (COM), and web services (Hobbs,

Col. 14, lines 9-20). Rangarajan teaches a system for remote access by invoking a JNI

for objects or procedures that are not programmed in Java (Rangarajan, Col. 5, lines

10-14). Therefore, it would have been obvious for one of ordinary skill in the art at the

time the invention was made to modify the Machihara system by including Java, COM

and JNI in order to communicate with a remote database server.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection

presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in
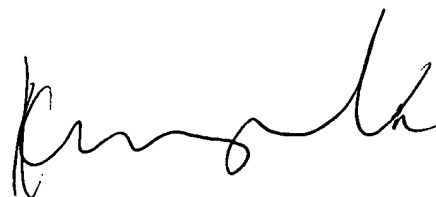
37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

10.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to HUNG Q PHAM whose telephone number is 703-

605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, KIM Y VU can be reached on 703-305-4393. The fax phone number for the

organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

Examiner Hung Pham
November 6, 2003

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100